



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

*[Signature]*

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

09/176,124 10/21/98 SCHNEIDER G 10191/857

IM62/0703

EXAMINER

KENYON & KENYON  
ONE BROADWAY  
NEW YORK NY 10004

TUNG, T

ART UNIT	PAPER NUMBER
----------	--------------

1743

*8*

DATE MAILED:

07/03/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/176,124	SCHNEIDER ET AL
Examiner	T. TUNG	Group Art Unit 1743
		Paper No. 8

**—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication .
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

**Status**

- Responsive to communication(s) filed on 5-22-00
- This action is FINAL.
- Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 1 1; 453 O.G. 213.

**Disposition of Claims**

- Claim(s) 1-7 is/are pending in the application.
- Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- Claim(s) \_\_\_\_\_ is/are allowed.
- Claim(s) 1-7 is/are rejected.
- Claim(s) \_\_\_\_\_ is/are objected to.
- Claim(s) \_\_\_\_\_ are subject to restriction or election requirement.

**Application Papers**

- See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- The proposed drawing correction, filed on \_\_\_\_\_ is  approved  disapproved.
- The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- The specification is objected to by the Examiner.
- The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. § 119 (a)-(d)**

- Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- All  Some\*  None of the CERTIFIED copies of the priority documents have been received.
- received in Application No. (Series Code/Serial Number) \_\_\_\_\_.
- received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

**Attachment(s)**

- Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_  Interview Summary, PTO-413
- Notice of Reference(s) Cited, PTO-892  Notice of Informal Patent Application, PTO-152
- Notice of Draftsperson's Patent Drawing Review, PTO-948  Other \_\_\_\_\_

**Office Action Summary**

Art Unit: 1102

Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is still unclear what exactly is being claimed by applicant. Are the claims drawn to a final product of a sintered sensor element? If so, to what is claim 3 drawn? What is the final product being recited in claim 3? Is that final product different from the pre-sintered product?

Claim 1, line 5, it is not evident which element is the "cover layer". From applicant's discussion, it would appear that element 32 is intended. However, the specification at page 3, line 15 refers to numeral 26 as a "cover layer" and at line 21 refers to numeral 32 as a "covering foil". For the purpose of the prior art rejections to follow, applicant is presumed to mean numeral 32 as the "cover layer".

Claim 1, last two lines, the expression "the layer plane being disposed between the function layer and the cover layer" appears to be redundant in view of wording at lines 6-11 of the claim. Note that the heating conductor is embedded in the heating element, which is arranged in a layer plane. If the heating element is disposed between the function layer and the cover layer, how can the layer plane not also be disposed between the function layer and the cover layer?

This rejection is prompted by applicant's May 22, 2000 response.

Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamada '806 or Yamada '807.

Art Unit: 1102

Applicant argues that the Yamada patents do not anticipate the claims because the heater is not between a function layer and a cover layer.

This argument is not persuasive. In Yamada '806, the lowermost layer or lowermost two layers can be considered the "cover layer" since it certainly covers the function layer (13'a and/or 13'b). That the lowermost layer(s) may have electrodes does not disqualify it as a "cover layer". Certainly, applicant's claim language does not exclude the presence of electrodes in the "cover layer".

Similarly, the lowermost layer(s) in Yamada '807 can be considered a "cover layer". As for the contention that the heater in this patent is arranged asymmetrically with respect to the layers of the sensor element, that is seen to be without merit. At least in fig. 5, layers 22 and 26 together have approximately the same thickness as layers 23 and 21. Since the heater is located at the upper surface of layer 23, it is considered to be symmetrical with respect to the layers of the sensor element.

Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schneider et al in view of Yamada '806 or Yamada '807.

Applicant argues that Schneider does not arrange his heater between a function layer and a cover layer.

This argument is not persuasive and appears to contradict the patent's drawings. In Schneider, heater 27 is seen to be clearly between a cover layer 29 and a function layer (14 and/or 22).

Art Unit: 1102

Applicant also argues that none of the references teaches locating the heater in a centered position with respect to the cross-section of the sensor element layers so as to provide a homogeneous distribution of heat.

This argument is also not persuasive. Either Yamada reference is considered to show locating a heater approximately at a centered position with respect to the cross-section of the sensor element layers. One of ordinary skill in the art would recognize that such a location of the heater would minimize throughout the sensor temperature gradients that can cause inaccurate measurement and damage due to thermal stress. Further, the fact that the layers on both sides of the heater in either Yamada may contain electrodes is seen to be irrelevant. The presence of electrodes would not adversely affect the even distribution of heat.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

Art Unit: 1102

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

The examiner can be reached at 703-308-3329. His supervisor Jill Warden can be reached at 703-308-4037. Any general inquiry should be directed to the receptionist at 703-308-0661. A fax number for TC 1700 is 703-305-7719.



Ta Tung

Primary Examiner

Art Unit 1743